1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



throughout an area of about four thousand square miles. All but eight of the known settlements were visited in person, and occasional individuals residing in the unvisited settlements were measured elsewhere. Owing to the smallness of the population and the difficulty of collecting data, it was deemed inadvisable to confine the selection of subjects to those showing only "pure Indian" traits. If such a selection had been followed, it would have been impossible to collect a sample of sufficient statistical size to provide a reliable picture of the present physical make-up of the population.[1]

Subjects were required to be recognized members of a Carib settlement on the Barama and to have an estimated age of at least eighteen in the case of females, and of at least twenty-one in the case of males. Cripples, defectives, and individuals who, even though they occupied adult social positions, appeared to be under the age limits, were eliminated. The amount of possible non-Indian blood in the sample thus obtained is indicated by the fact that, of the group of 104 males only 20 possessed the combination of straight, coarse, black hair. Of the 102 females only 14 possessed these characteristics. In sorting for individuals possessing the combination merely of straight, black hair, 28 out of 104 males in the sample appeared, and 33 out of a total of 102 females. Thus, if the possession of straight, black hair be assumed as the minimum criterion of racial purity, 27 percent of the male population and 32 percent of the female population were racially pure in this crude sense. There is no reason to believe that the proportions would have been radically altered had every adult individual in the area been measured.

Technique of measuring and observing followed that taught by Professor E. A. Hooton of Harvard University, and the recording was done on field blanks used by the Division of Anthropology of Harvard University. Head height was taken with the anthropometer, measuring from tragion to the top of the head. Recorders were Cedric Farnum, my guide, and Mr. S. Morgan Hills of Hartford, Connecticut, my companion during the last three months in the Barama country. The von Luschan porcelain color chart was used in determining skin color. The statistical computations on the raw data were done in the Harvard Anthropometric Labora-

[1] See Plates 27–30 for pictures of Carib physical types.

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



sexes; three-fifths of the males show a medium condition of projection, while the same proportion of females shows large frontal projection of the malars. The lateral projection of the malars in both sexes is characteristically medium, tending toward the large.

The ear helix is characteristically small or medium in size, although the female helix is large in 42 percent of the cases, whereas a large male helix occurs in only 13 percent of the cases. The antihelix tends to be small or medium, in size. Darwin's point, usually small, occurs in 23 percent of the males and 35 percent of the females.

The ear lobe is free in roughly two-fifths of both sexes (37.50 percent of males, 40 percent of females), but the soldered type occurs almost twice as frequently as the attached type among the males, whereas the attached type occurs more frequently than the soldered type among females.

The majority of ears are of medium size in both sexes, although the female tends more strongly to small ears than does the male. Projecting ears of noticeable proportions occur in only 7 percent of the males and 2 percent of the females.

Temporal fullness tends to be medium or large in both sexes, although the tendency toward pronounced fullness is more observable in the males. Occipital protrusion is medium or small. The Caribs, however, do not characteristically have flat occiputs. Lambdoid flattening is recorded as more pronounced among males than among females, although this may be due to the fact that it is more easily recognized in males because of their short hair.

Cranial assymmetry was not recorded in any female subject, but is noticeable in 3 percent of the males.

Body build tends to be medium in both sexes, with a greater variability in both directions recorded for the females.

**Comparison of the Barama Caribs with the Central Caribs.** For comparative purposes we have only two other anthropometric series from British Guiana, those measured by Dr. W. C. Farabee and published, without statistical treatment other than the calculation of arithmetic means, in his monographs *The Central Arawaks* (Philadelphia, 1918) and *The Central Caribs* (Philadelphia, 1924). Among the Central Caribs Dr. Farabee obtained measurements of 71 male and 28 female individuals, members of six more or less related Carib-speaking tribes of southern and central British

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



144 Guiana (Macusi, Parakuta, Piau, Waiwai, Cumayena, and Uracuna). Because of the comparatively small number of subjects measured in any one tribe, the entire number has been seriated into one male series and one female series, and statistical constants have been calculated from these seriations. We thus have for comparison a male series and a female series of Central Caribs, which are, so far as I know, the only Carib individuals in addition to those of the Barama that have been measured in British Guiana. The means and constants of the anthropometric measurements of the Central Caribs are to be found in Table IV.

The differences between the means of the comparable measurements of the two male series, the probable errors of the differences, and the x P.E.[1] are presented in Table X. If it is assumed that an x P.E. of 3 and over indicates significant tribal difference, it will be noted that no significant differences are shown in stature, biacromial, chest breadth, sitting height, and bizygomatic between the two male series. On the other hand differences of importance are present (in the order of their size) in chest depth, nose height, upper face height, total face height, nose breadth, head length, minimum frontal, and head breadth. The dimensions of the head, total face height, and nose height are greater in the Barama group than in the Central group, while nose breadth, upper face height, bigonial, minimum frontal, and chest depth are lower. The indicated difference in chest depth (x P.E.: 38.71) may reflect differences in technique which have exaggerated the actual tribal differences.[2] The same may be said of nose height, upper face height, and total face height, all of which measurements depend upon the determination of nasion. It is curious, however, that the Barama group exceeds in total face height, while it falls below the Central group in upper face height, a result which is inconsistent with the idea that the differences in facial measurements between the groups are due to differences between the investigators in locating nasion. The comparison of face heights simply seems to indicate the presence of longer chins or teeth or both in the Barama group, if we ignore further possible differences in technique. The differ-

[1] $\text{x P.E.} = \frac{\text{Difference between two means}}{\text{Probable error of the difference}}$

$$\text{Probable error of the difference} = \sqrt{\text{P.E.}_A^2 + \text{P.E.}_B^2}$$

[2] On the Barama series, chest depth was taken on the normally deflated chest at the level of the nipples with the anthropometer. Measuring was done from the left side.

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



ences in head length and head breadth, measurements in which variations of technique are less likely to occur, may reasonably be taken at their face value. 144

Although it is essential to bear in mind the factor of possible differences in technique in considering the quantitative results of our comparisons, little profit can be gained in discussing this factor further at this point, inasmuch as we are unable to compare the techniques of the two investigators.

A comparison of the indices of the two groups also shows a considerable number of significant differences. (See Table XI.) Of the nine comparable indices, three show no significant differences, namely, relative shoulder breadth, relative sitting height, and cephalic index. On the other hand, the Barama group exceeds the Central group in thoracic index and facial index, indicating deeper chests and longer faces. The Central Caribs exceed the Barama Caribs in cephalo-facial, zygo-gonial, upper facial, and nasal index.

Let us now examine the differences between two female groups, tabulated in Table XII and Table XIII. We have, in the first place, twelve comparable measurements. Of these, six show no significant differences, namely, stature, biacromial, sitting height, head breadth, bizygomatic, upper face height. Significant tribal differences are shown in head length, total face height, and nose length, in each of which measurements the Barama females exceed the Central females, and also in minimum frontal, bigonial, and nose breadth, in each of which measurements the Central women exceed the Barama women. Of eight indices which we have for both groups, three show no significant differences, namely, relative shoulder breadth, relative sitting height, and cephalo-facial. The Barama group exceeds the other in facial index, but is exceeded by the Central group in cephalic index, zygo-gonial, upper facial, and nasal indices.

It would seem, on the face of the evidence in hand, that we are dealing here with two distinct physical groups. In comparing the two male series, we find that 64 percent of the comparable measurements and 66 percent of the indices show significant differences as between the two groups. With the females the two groups are significantly different in 50 percent of the measurements and 62 percent of the indices. Let us see how consistent the two sexes are

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



in regard to the differences between the two groups. We find that both sexes agree in showing no significant differences in stature, biacromial, sitting height, bizygomatic, relative shoulder breadth, and relative sitting height. We find that both males and females of the Barama group exceed the respective sex of the Central group in head length, total face height, nose height, and facial index, whereas they both fall behind the respective sex of the Central group in minimum frontal, bigonial, nose breadth, zygo-gonial index, upper facial index, and nasal index. The two sexes do not agree in significant differences between the two groups in regard to head breadth, upper face height, cephalo-facial index, and cephalic index. In neither upper facial height, head breadth, nor cephalo-facial index do the females of the two series show significant differences, whereas the Barama males exceed the Central males in head breadth and fall below them significantly in upper face height and cephalo-facial index. In the cephalic index, on the other hand, the male series show no significant difference, whereas the Barama female index falls significantly below that of the Central females. An inspection of tables X-XIII will show that in each of these four traits, the sexes are consistent with each other in the tendency of divergence, even though the divergence is statistically significant in only one sex. For instance, the cephalic index in both the male and the female Barama series falls below that of the respective sex in the Central series, but is statistically significant only as between the two female series.

In summary we may say that the Barama sample, while agreeing with the Central sample in stature, proportions of the body, and cephalic index, differs from the southern type in its longer and relatively narrower nose, its longer and relatively narrower face.

**Comparison of the Barama Caribs with the Central Arawaks.** To complete the orientation of the Barama Caribs in relation to other groups of British Guiana for which we have data, we must compare the Barama group with the Central Arawaks published by Farabee.[1] Dr. Farabee obtained measurements of 32 males and 18 females, members of four Arawak-speaking tribes of south central British Guiana (Wapisiana, Taruma, Mapidian, and Ataroi.) The data on these individuals have been grouped into one male

[1] Farabee, 1918, *The Central Arawaks*, pp. 176–182.

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



series and one female series and treated statistically in the same way as the data on the Central Caribs, as described in the preceding section. (See Tables VI, VII, X, XI, XII and XIII.) 144

In comparing the means of the measurements of the two male series (Table X) we see that six of the fourteen comparable measurements show no significant differences. These are stature, biacromial, sitting height, head length, head breadth, and bizygomatic. In the eight other measurements, the Barama male mean falls significantly below that of the Arawak mean. These measurements are chest depth, chest breadth, minimum frontal, bigonial, total face height, upper face height, nose height, and nose breadth. Turning to a comparison of the indices of the two male series, we find no significant differences in the relative shoulder breadth, relative sitting height, and cephalic index. The thoracic index of the Barama group is significantly higher than that of the Arawak group. On the other hand, the Barama group falls significantly below the Arawak group in respect to cephalo-facial index, zygogonial index, upper facial index, and nasal index.

If we compare the means of the twelve measurements given for the females (Table XII), we find that the two groups are not significantly different in biacromial, sitting height, minimum frontal, bizygomatic, bigonial, and nose breadth. The Barama females exceed the Carib females to a significant extent in head length, head breadth, total face height, and nose height, while the Arawak females are significantly superior in stature and upper face height. In the indices the two groups of females are not significantly different in respect to relative sitting height, cephalic index, cephalo-facial index, and zygo-gonial index, whereas the Arawak group exceeds the Barama group significantly in all the three remaining indices, namely, relative shoulder breadth, upper facial index, and nasal index.

In summary it is somewhat surprising to note that, in the light of the statistics, the Arawaks are significantly different from the Barama Caribs in a proportionately fewer number of traits than are the Central Caribs. Only 57 percent of the measurements of the two male series show significant differences, as compared with 64 percent when the comparison was made with the Central Caribs. Sixty-two percent of the male indices are significantly different between the Barama and Arawak groups, as compared

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



144 with 66 percent between the Barama and Central Carib groups. Fifty percent of the comparable female measurements of the Arawak as well as of the Central female groups show significant difference, but only 43 percent of the Arawak female indices are significantly different from those of the Barama females, as compared with 62 percent in the case of the Central females. The unanimity of divergent tendency as exhibited by both sexes is less marked in the Arawak group than in the case of the Central Caribs. Only in biacromial and bizygomatic is no significant difference shown by either sex. Both sexes of the Arawaks exceed the Barama Caribs significantly in respect to upper face height, upper facial index, and nasal index.

The reliability of these results is somewhat lessened by the smallness of the Arawak sample, particularly the female portion of it. If we assume the results to be suggestive in the absence of further comparative data, and summarize the differences between the respective male groups alone, we note a fundamental agreement between the Barama Caribs and the Central Arawaks in absolute stature, breadth of shoulders, length of the upper body, dimensions of the head, and breadth of the face, an agreement which extends to the relative shoulder breadth, relative sitting height, and cephalic index. The Arawak men, however, differ fundamentally from the Barama Carib men in that they possess absolutely broader and deeper chests, wider foreheads, wider jaws, longer faces (both in respect to the whole face and the upper face), longer and wider noses. From the relative viewpoint, on the other hand, the Barama Caribs possess deeper chests, longer upper faces, and narrower noses. The Barama face is narrower in relation to the head, and the jaws are narrower in relation to the face, than is the case among the Arawaks.

In view of the fundamental agreement between the Barama Caribs and the Central Arawaks in regard to such basic traits as stature, relative shoulder breadth, relative sitting height, *and* cephalic index (traits of great racial significance, and dependent upon measurements in which differences of technique between investigators are reduced to the minimum) we hesitate to assign the two groups to separate populations. Comparison of the averages of the coefficients of variation for the three groups, in Tables VIII and IX, shows that in measurements and indices

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



for both sexes, the Arawak variability approaches that of the Barama Caribs more closely than does the Central Carib average variability. Although the comparative heterogeneity of the Arawak group may be due to smallness of sample, it is possible that the comparatively high variability within the Barama Carib group is due to a mixture of racial elements within the sample. This becomes more probable when the fact, cited previously, is considered that only 27 percent of the Barama males and 32 percent of the females show the combination of the supposed "Indian" traits of straight and black hair.

**A Selected Group of Barama Caribs Possessing Straight and Black Hair, Compared with the Central Caribs and Central Arawaks.** A group composed of those individuals possessing the "Indian" traits of straight and black hair, and which may be said to approach the basic unmixed physical type of the Barama population, has been segregated from the unrefined series. This procedure involves the assumption that an individual possessing hair of a shade lighter than black, or hair which is not perfectly straight, has a certain amount of non-Indian blood in his ancestry. In this selected group, which for the sake of convenience we shall call the "pure group," we have 28 males and 33 females. The metrical, indicial, and morphological characteristics of the pure group are presented in Tables XIV, XV, and XVI.

The determination of the racial strains which have gone into the making of the present Barama population is a rather complex problem, the solution of which must be deferred to a later paper. In passing, however, it may be suggestive, though by no means precise, to call attention to the fact that the typical man of the pure group is smaller in every measurement, with the exception of head height, than the typical male member of the unrefined group.

In Tables XVII–XX will be found the statistical results of the comparison of means of measurements and indices of the pure Barama group with those of the Central Caribs and Central Arawaks respectively.

Examining first the differences between the pure Barama males and the Central Carib males, we find that the chest breadth of the pure group is significantly less than that of the Central Caribs, a difference which was not significant when the comparison was

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



144 made with the unrefined Barama group. On the other hand, we find that the breadth of the head, which was significantly greater in the former comparison is now not significantly different. Other traits which showed significant differences between the Central Caribs and the unrefined Barama group still show significant difference when the comparison is made with the refined Barama group. There is a general tendency, however, for the degree of difference, as shown by the size of x P.E., to be diminished. Thus, there is less difference, although it is still significant, in the head length, nose breadth, total face height, chest depth, minimum frontal, bigonial, upper face height, and nose breadth. This is to say that, for instance, although the head is still significantly longer in the pure Barama group, the difference between the two means, taking probable errors into account, is less. In the above mentioned measurements there thus seems to be a tendency toward approximation between the two groups. On the other hand, it will be noticed that the differences in upper face height and nose breadth are accentuated.

Turning to the indices, we see that the difference in thoracic index is no longer significant. The differences in cephalo-facial index and in upper facial index, though still significant, have increased in this comparison, while the differences in zygo-gonial and nasal index, also still significant, have become less marked.

The same incidence of significant difference occurs in the comparable measurements of this as in the former comparison: 64 percent of the comparable measurements show significant difference. In the indices, the incidence of difference is decreased: 57 percent of the comparable indices show significant difference in this comparison, as compared with 66 percent between the whole Barama series and the Central Caribs. There is a tendency toward approximation all along the line, except in upper face height, nose breadth, cephalo-facial index, and upper facial index, in which traits the already significant differences between the two groups are accentuated by refining the Carib sample. Since, however, all the traits which showed significant differences in the former comparison, with the exception of head breadth and thoracic index, show significant differences in the comparison involving the refined Barama group, we can hardly say that the divergence between the Barama and Central Carib samples, as shown in the

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



comparison of the unrefined Barama group, is materially lessened when the comparison is made with the refined group. 144

If we examine the comparison between the females of the pure Barama group and of the Central group, we find that the number of divergences is increased. Of the comparable measurements, 58 percent now show significant differences, as compared with 50 percent in the former comparison, and of the indices, 75 percent show significant difference as compared with 62 percent in the former comparison. Upper face height and biacromial are now significantly different, although nose breadth, which was significantly different in the former comparison, is no longer significant. Relative shoulder breadth, which showed no significant difference formerly, is now significantly less in the pure Barama group. Of those traits which showed significant difference in the unrefined Barama group, the present comparison shows the differences in head length, upper facial index, and cephalic index to be accentuated, as indicated by the size of the x P.E. The differences in total face height, nose height, minimum frontal, bigonial, zygo-gonial, nasal index, and facial index are still significant, but somewhat smaller. As regards the females, therefore, the refining of the Barama sample seems to bring out differences which on the whole separate the groups still farther.

Let us now compare the males of the pure Barama group with the males of the Central Arawaks. In the first place, we see that the incidence of significant difference remains the same. As in the comparison with the unrefined Barama series, 57 percent of the comparable measurements and 62 percent of the comparable indices show significant differences. We find, however, that sitting height, which in the former comparison showed no significant difference, is now significantly less in the Barama series. The same is true of relative shoulder breadth. On the other hand, total face height and thoracic index, which showed significant differences in the former comparison, are no longer significantly different. The differences in nose height, chest breadth, upper face height, cephalo-facial index, and upper facial index are increased, while those in chest depth, minimum frontal, bigonial, nose breadth, zygo-gonial index, and nasal index are decreased. On the whole, the relative positions of the two groups have not been greatly changed.

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



144 In comparing the females of the pure Barama group with those of the Arawak group, we find that the situation here also has not been greatly changed by the refining of the Barama group. Incidence of difference remains the same for both measurements and indices as when the comparison was made with the unrefined Barama group. Fifty percent of the measurements and 43 percent of the indices show significant difference. In the measurements we find that bizygomatic, which in the former comparison showed no significant difference, is now significantly greater in the Barama group than in the Arawak group. Upper face height, which was formerly significantly less in the Barama group, now shows no significant difference. Other traits formerly showing significant difference continue to do so, although the difference in head length, head breadth, biacromial, and relative shoulder breadth are increased, while those in total face height, nose height, upper facial index, and nasal index are decreased.

To summarize the relations of the basic Barama population with the Central Caribs and the Central Arawaks we may say, in the light of the data at hand, that from the metrical point of view the three samples may probably be considered subtypes of one general racial group. There is a general agreement in the measurements and proportions of the body and in the cephalic index, but the number of significant differences in the measurements and proportions of the chest, forehead, face, jaws, and nose is too great to allow these groups to be classed together as a single type. There is a slightly greater tendency toward convergence displayed between the Barama and Central Arawak groups, than between the Barama Caribs and the Central Caribs.

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



TABLE IV

ANTHROPOMETRIC MEASUREMENTS OF CENTRAL CARIBS BY SEX

(Constants calculated and tabulated from data presented in *The Central Caribs* by W. C. Farabee, Philadelphia, 1924)

| Measurement | Sex | No. | Range | Mean | S.D. | V. |
|---|---|---|---|---|---|---|
| 1. Stature | M | 68 | 141–170 | 157.45 ± .38 | 4.21 ± .27 | 2.99 ± .17 |
| (c) | F | 28 | 135–158 | 145.08 ± .70 | 5.46 ± .49 | 3.74 ± .34 |
| 2. Biacromial | M | 41 | 31– 39 | 36.02 ± .16 | 1.56 ± .12 | 4.33 ± .32 |
| (c) | F | 18 | 28– 39 | 34.01 ± .52 | 3.30 ± .37 | 9.70 ± 1.09 |
| 3. Chest Breadth | M | 41 | 26– 34 | 28.62 ± .18 | 1.74 ± .13 | 6.08 ± .45 |
| (c) | F | Not Observed | | | | |
| 4. Chest Depth | M | 40 | 20– 25 | 22.20 ± .14 | 1.22 ± .10 | 5.95 ± .45 |
| (c) | F | Not Observed | | | | |
| 5. Sitting | M | 66 | 74– 88 | 81.09 ± .24 | 2.94 ± .17 | 3.63 ± .21 |
| Height (c) | F | 27 | 68– 85 | 75.45 ± .46 | 3.54 ± .32 | 4.69 ± .43 |
| 6. Head Length | M | 71 | 170–199 | 182.55 ± .48 | 6.06 ± .34 | 3.32 ± .19 |
| (m) | F | 28 | 158–184 | 172.71 ± .66 | 5.22 ± .47 | 3.02 ± .27 |
| 7. Head Breadth | M | 71 | 135–158 | 147.58 ± .36 | 4.56 ± .26 | 3.09 ± .17 |
| (m) | F | 28 | 135–155 | 142.87 ± .58 | 4.59 ± .41 | 3.21 ± .29 |
| 8. Head Height | | Not Observed | | | | |
| 9. Minimum | M | 68 | 91–120 | 105.27 ± .37 | 4.50 ± .26 | 4.27 ± .25 |
| Frontal (m) | F | 28 | 94–117 | 102.92 ± .53 | 4.17 ± .38 | 4.05 ± .36 |
| 10. Bizygomatic | M | 68 | 125–149 | 138.25 ± .41 | 5.00 ± .29 | 3.62 ± .21 |
| (m) | F | 28 | 120–139 | 130.40 ± .54 | 4.25 ± .38 | 3.26 ± .29 |
| 11. Bigonial | M | 68 | 92–123 | 105.46 ± .45 | 5.52 ± .32 | 5.23 ± .30 |
| (m) | F | 28 | 88–107 | 100.06 ± .49 | 3.88 ± .35 | 3.88 ± .35 |
| 12. Total Face | M | 21 | 105–129 | 115.80 ± .78 | 5.30 ± .55 | 4.58 ± .48 |
| Height (m) | F | 12 | 90–114 | 105.75 ± .80 | 5.85 ± .80 | 5.53 ± .76 |
| 13. Upper Face | M | 68 | 60– 89 | 71.70 ± .40 | 4.90 ± .28 | 6.83 ± .40 |
| Height (m) | F | 28 | 55– 79 | 64.50 ± .58 | 4.55 ± .41 | 7.05 ± .63 |
| 14. Nose Height | M | 68 | 40– 59 | 48.66 ± .30 | 3.72 ± .22 | 7.64 ± .44 |
| (m) | F | 28 | 36– 55 | 44.78 ± .47 | 3.72 ± .34 | 8.31 ± .75 |
| 15. Nose Breadth | M | 67 | 31– 48 | 40.52 ± .26 | 3.18 ± .18 | 7.89 ± .46 |
| (m) | F | 28 | 28– 42 | 35.87 ± .34 | 2.64 ± .24 | 7.36 ± .66 |

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



141
144

TABLE V

ANTHROPOMETRIC INDICES OF CENTRAL CARIBS BY SEX

(Constants calculated and tabulated from data presented in *The Central Caribs* by W. C. Farabee, Philadelphia, 1924)

| Index | Sex | No. | Range | Mean | S.D. | V. |
|---|---|---|---|---|---|---|
| 1. Relative Shoulder Br. | M | 41* | 20– 25 | 23.08 ± .11 | 1.02 ± .08 | 4.42 ± .33 |
| | F | 18 | 20– 25 | 22.72 ± .18 | 1.14 ± .13 | 5.02 ± .56 |
| 2. Thoracic | M | 40 | 69– 84 | 77.50 ± .37 | 3.44 ± .26 | 4.44 ± .33 |
| | F | Not Observed | | | | |
| 3. Relative Sitting Height | M | 64 | 48– 55 | 51.46 ± .13 | 1.58 ± .09 | 3.07 ± .18 |
| | F | 27 | 48– 55 | 52.06 ± .23 | 1.74 ± .16 | 3.34 ± .31 |
| 4. Cephalic | M | 71 | 74– 88 | 80.88 ± .14 | 1.76 ± .10 | 2.18 ± .12 |
| | F | 28 | 74– 88 | 82.92 ± .37 | 2.91 ± .26 | 3.51 ± .32 |
| 5. Cephalo-facial | M | 68 | 82– 99 | 93.38 ± .24 | 2.88 ± .17 | 3.08 ± .18 |
| | F | 28 | 82– 99 | 91.37 ± .46 | 3.63 ± .33 | 3.97 ± .36 |
| 6. Zygo-gonial | M | 68 | 69– 86 | 76.54 ± .28 | 3.45 ± .28 | 4.51 ± .26 |
| | F | 28 | 68– 83 | 76.50 ± .38 | 2.96 ± .27 | 3.87 ± .35 |
| 7. Total Facial | M | 51** | 69– 86 | 78.85 ± .41 | 4.38 ± .29 | 5.55 ± .37 |
| | F | 12 | 69– 89 | 81.25 ± .86 | 4.44 ± .61 | 5.46 ± .75 |
| 8. Upper Facial | M | 68 | 40– 63 | 51.95 ± .28 | 3.45 ± .20 | 6.64 ± .38 |
| | F | 28 | 43– 57 | 50.42 ± .44 | 3.48 ± .31 | 6.90 ± .62 |
| 9. Nasal | M | 67 | 67–102 | 83.12 ± .59 | 7.17 ± .42 | 8.63 ± .50 |
| | F | 28 | 70– 99 | 81.50 ± .84 | 6.63 ± .60 | 8.14 ± .73 |

* Two additional cases which are given in Farabee's tables of measurements, but not included in his total of indices, were calculated and are included in the total given here.

** Nine indices which are given in Farabee's total, but for which measurements are not given, have been eliminated in the total given here.

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



141
144

TABLE VI

## ANTHROPOMETRIC MEASUREMENTS OF CENTRAL ARAWAKS BY SEX

(Constants calculated and tabulated from data presented in *The Central Arawaks* by W. C. Farabee, Philadephia, 1918)

| Measurement | Sex | No. | Range | Mean | S.D. | V. |
|---|---|---|---|---|---|---|
| 1. Stature | M | 32 | 150–173 | 159.16 ± .70 | 5.88 ± .50 | 3.69 ± .31 |
| (c) | F | 17 | 144–155 | 147.64 ± .44 | 2.70 ± .31 | 1.83 ± .21 |
| 2. Biacromial | M | 21 | 31– 42 | 36.56 ± .29 | 1.98 ± .21 | 5.42 ± .56 |
| (c) | F | 7 | 31– 36 | 33.71 ± .38 | 1.50 ± .27 | 4.45 ± .80 |
| 3. Chest | M | 21 | 26– 34 | 29.43 ± .26 | 1.74 ± .18 | 5.91 ± .62 |
| Breadth (c) | F | 7 | 26– 31 | 28.71 ± .38 | 1.50 ± .27 | 5.22 ± .94 |
| 4. Chest Depth | M | 21 | 20– 25 | 22.22 ± .19 | 1.28 ± .13 | 5.76 ± .60 |
| (c) | F | Not Observed | | | | |
| 5. Sitting | M | 32 | 74– 91 | 81.84 ± .41 | 3.45 ± .29 | 4.22 ± .36 |
| Height (c) | F | 12 | 71– 82 | 75.75 ± .48 | 2.49 ± .34 | 3.31 ± .46 |
| 6. Head Length | M | 32 | 173–196 | 184.77 ± .52 | 4.35 ± .37 | 2.35 ± .20 |
| (m) | F | 18 | 167–184 | 174.18 ± .72 | 4.53 ± .51 | 2.60 ± .29 |
| 7. Head | M | 32 | 138–158 | 148.57 ± .62 | 5.22 ± .44 | 3.51 ± .30 |
| Breadth (m) | F | 18 | 132–149 | 138.16 ± .84 | 5.28 ± .59 | 3.82 ± .43 |
| 8. Minimum | M | 32 | 91–117 | 105.68 ± .69 | 5.76 ± .49 | 5.45 ± .46 |
| Frontal (m) | F | 18 | 91–120 | 100.16 ± 1.08 | 6.78 ± .76 | 6.77 ± .76 |
| 9. Bizygomatic | M | 32 | 125–154 | 138.90 ± .66 | 5.55 ± .47 | 4.00 ± .34 |
| (m) | F | 18 | 120–139 | 128.65 ± .80 | 5.00 ± .56 | 3.89 ± .44 |
| 10. Bigonial | M | 32 | 96–119 | 106.26 ± .63 | 5.32 ± .45 | 5.01 ± .42 |
| (m) | F | 18 | 80–107 | 95.74 ± .80 | 5.04 ± .57 | 5.26 ± .59 |
| 11. Total Face | M | 21 | 105–134 | 116.50 ± .93 | 6.35 ± .66 | 5.45 ± .57 |
| Height (m) | F | 8 | 95–114 | 105.75 ± 1.16 | 4.85 ± .82 | 4.59 ± .77 |
| 12. Upper Face | M | 32 | 60– 84 | 72.95 ± .55 | 4.60 ± .39 | 6.31 ± .53 |
| Height (m) | F | 18 | 55– 74 | 67.00 ± .52 | 3.30 ± .37 | 4.92 ± .55 |
| 13. Nose Height | M | 32 | 40– 55 | 48.38 ± .40 | 3.36 ± .28 | 6.94 ± .58 |
| (m) | F | 17 | 36– 55 | 44.78 ± .64 | 3.92 ± .45 | 8.75 ± 1.01 |
| 14. Nose | M | 32 | 34– 51 | 41.00 ± .42 | 3.54 ± .30 | 8.63 ± .73 |
| Breadth (m) | F | 17 | 28– 42 | 35.18 ± .49 | 3.00 ± .35 | 8.53 ± .99 |

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



TABLE VII

ANTHROPOMETRIC INDICES OF CENTRAL ARAWAKS BY SEX

141
144

(Constants calculated and tabulated from the data presented in *The Central Arawaks* by W. C. Farabee, Philadelphia, 1918)

| Index | Sex | No. | Range | Mean | S.D. | V. |
|---|---|---|---|---|---|---|
| 1. Relative Shoulder Br. | M | 21 | 20– 25 | 23.16 ± .17 | 1.14 ± .12 | 4.92 ± .51 |
| | F | 7 | 22– 25 | 23.36 ± .25 | 1.00 ± .18 | 4.28 ± .77 |
| 2. Thoracic | M | 21 | 69– 84 | 76.02 ± .59 | 4.00 ± .42 | 5.26 ± .55 |
| | F | Not Observed | | | | |
| 3. Relative Sitting Height | M | 32 | 48– 55 | 51.32 ± .20 | 1.72 ± .14 | 3.35 ± .28 |
| | F | 12 | 48– 55 | 51.84 ± .33 | 1.70 ± .23 | 3.28 ± .45 |
| 4. Cephalic | M | 32 | 74– 85 | 80.34 ± .38 | 3.15 ± .27 | 3.92 ± .33 |
| | F | 18 | 74– 88 | 81.18 ± .40 | 2.55 ± .29 | 3.14 ± .35 |
| 5. Cephalo-facial | M | 32 | 85–106 | 93.98 ± .53 | 4.44 ± .37 | 4.72 ± .40 |
| | F | 18 | 85–100 | 91.34 ± .49 | 3.09 ± .35 | 3.38 ± .38 |
| 6. Zygo-gonial | M | 32 | 70– 84 | 76.70 ± .45 | 3.75 ± .32 | 4.89 ± .41 |
| | F | 18 | 66– 83 | 74.50 ± .66 | 4.17 ± .36 | 5.60 ± .63 |
| 7. Total Facial | Not Observed | | | | | |
| 8. Upper Facial | M | 32 | 46– 63 | 52.43 ± .44 | 3.69 ± .31 | 7.04 ± .59 |
| | F | 18 | 43– 60 | 52.01 ± .55 | 3.45 ± .39 | 6.63 ± .74 |
| 9. Nasal | M | 32 | 73–102 | 84.86 ± .99 | 8.28 ± .70 | 9.73 ± .82 |
| | F | 17 | 67– 96 | 78.95 ± 1.13 | 6.90 ± .80 | 8.74 ± 1.01 |

TABLE VIII

COEFFICIENTS OF VARIATION OF MEASUREMENTS FOR BARAMA CARIBS, CENTRAL CARIBS, AND CENTRAL ARAWAKS

| Measurement | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | Barama | Central | Arawaks | Barama | Central | Arawaks |
| Head length | 3.04 ± .14 | 3.32 ± .19 | 2.35 ± .20 | 3.48 ± .16 | 3.02 ± .27 | 2.60 ± .29 |
| Head breadth | 3.49 ± .16 | 3.09 ± .17 | 3.51 ± .30 | 3.10 ± .15 | 3.21 ± .29 | 3.82 ± .42 |
| Bizygomatic | 3.57 ± .16 | 3.62 ± .21 | 4.00 ± .34 | 4.10 ± .19 | 3.26 ± .29 | 3.89 ± .44 |
| Stature | 3.88 ± .18 | 2.99 ± .17 | 3.69 ± .31 | 4.18 ± .20 | 3.74 ± .34 | 1.83 ± .21 |
| Sitting height | 3.93 ± .18 | 3.63 ± .21 | 4.22 ± .36 | 4.84 ± .23 | 4.09 ± .43 | 3.31 ± .46 |
| Total face height | 4.22 ± .28 | 4.58 ± .48 | 5.45 ± .47 | 5.43 ± .26 | 5.53 ± .76 | 4.59 ± .77 |
| Chest depth | 4.89 ± .23 | 5.95 ± .45 | 5.76 ± .60 | ..... | ..... | ..... |
| Biacromial | 5.36 ± .25 | 4.33 ± .32 | 5.42 ± .56 | 9.30 ± .44 | 9.70 ± 1.09 | 4.45 ± .80 |
| Minimum frontal | 5.68 ± .27 | 4.27 ± .25 | 5.45 ± .46 | 4.36 ± .46 | 4.05 ± .36 | 6.77 ± .76 |
| Bigonial | 5.71 ± .27 | 5.23 ± .30 | 5.01 ± .42 | 6.16 ± .29 | 3.88 ± .35 | 5.26 ± .59 |
| Chest breadth | 6.60 ± .31 | 6.06 ± .45 | 5.91 ± .62 | ..... | ..... | ..... |
| Nose height | 6.96 ± .33 | 7.64 ± .44 | 6.94 ± .58 | 8.29 ± .39 | 8.31 ± .75 | 8.75 ± 1.01 |
| Upper face height | 6.97 ± .33 | 6.83 ± .40 | 6.31 ± .53 | 7.62 ± .36 | 7.05 ± .63 | 4.92 ± .55 |
| Head height | 7.10 ± .49 | ..... | ..... | 6.83 ± .43 | ..... | ..... |
| Nose breadth | 7.86 ± .37 | 7.89 ± .46 | 7.63 ± .73 | 7.13 ± .34 | 7.36 ± .66 | 8.53 ± .99 |
| Average | 5.15 | 4.96 | 5.11 | 5.77 | 4.56 | 4.90 |

1441
1444

141
144

TABLE IX

COEFFICIENTS OF VARIATION OF INDICES FOR BARAMA CARIBS, CENTRAL CARIBS, AND CENTRAL ARAWAKS

| Index | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | Barama | Central | Arawaks | Barama | Central | Arawaks |
| Cephalo-facial | 3.12 ± .15 | 3.08 ± .18 | 4.72 ± .40 | 3.91 ± .18 | 3.97 ± .36 | 3.38 ± .38 |
| Relative sitting height | 3.26 ± .15 | 3.07 ± .18 | 3.35 ± .28 | 3.47 ± .17 | 3.34 ± .31 | 3.28 ± .45 |
| Cephalic | 3.85 ± .18 | 2.18 ± .12 | 3.92 ± .33 | 3.37 ± .16 | 3.51 ± .32 | 3.92 ± .33 |
| Facial | 4.60 ± .22 | 5.55 ± .37 | ..... | 5.10 ± .22 | 5.46 ± .75 | ..... |
| Relative shoulder breadth | 5.09 ± .24 | 4.42 ± .33 | 4.92 ± .51 | 9.36 ± .45 | 5.02 ± .56 | 4.28 ± .77 |
| Zygo-gonial | 5.15 ± .24 | 4.51 ± .26 | 4.89 ± .41 | 5.37 ± .24 | 3.87 ± .35 | 5.60 ± .63 |
| Thoracic | 5.69 ± .27 | 4.44 ± .33 | 5.26 ± .55 | ..... | ..... | ..... |
| Upper facial | 7.13 ± .33 | 6.64 ± .38 | 7.04 ± .59 | 6.87 ± .33 | 6.90 ± .62 | 6.63 ± .74 |
| Nasal | 8.79 ± .41 | 8.14 ± .73 | 9.73 ± .82 | 9.64 ± .46 | 8.14 ± .73 | 8.74 ± 1.01 |
| Average | 5.18 | 4.67 | 5.47 | 6.01 | 4.40 | 4.47 |

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



TABLE X

DIFFERENCES BETWEEN BARAMA CARIBS AND CENTRAL CARIBS, BARAMA CARIBS AND CENTRAL ARAWAKS, WITH VALUE IN TERMS OF PROBABLE ERROR

| Measurements | Barama Caribs compared with Central Caribs—Male | | Barama Caribs compared with Central Arawaks—Male | |
|---|---|---|---|---|
| | Diff. | p.e. | Diff. | p.e. |
| Stature | − .63 ± .55 | 1.14 | −2.34 ± .81 | 2.89 |
| Biacromial | − .18 ± .20 | .90 | − .72 ± .32 | 2.25 |
| Chest breadth | − .45 ± .22 | 2.04 | −1.26 ± .28 | 4.50 |
| Chest depth | −5.42 ± .14 | 38.71 | −5.44 ± .20 | 27.20 |
| Sitting height | − .15 ± .32 | .47 | − .90 ± .46 | 1.96 |
| Head length | 4.08 ± .61 | 6.69 | 1.86 ± .64 | 2.91 |
| Head breadth | 2.01 ± .49 | 4.10 | 1.02 ± .71 | 1.44 |
| Minimum frontal | −2.80 ± .53 | 5.28 | −3.21 ± .79 | 4.06 |
| Bizygomatic | − .45 ± .52 | .86 | −1.10 ± .74 | 1.49 |
| Bigonial | −4.64 ± .59 | 7.86 | −5.44 ± .74 | 7.35 |
| Total face height | 6.10 ± .85 | 7.18 | 5.40 ± .99 | 5.45 |
| Upper face height | −5.70 ± .50 | 11.40 | −6.95 ± .62 | 11.21 |
| Nose height | 5.40 ± .39 | 13.85 | 5.68 ± .47 | 12.08 |
| Nose breadth | −2.37 ± .33 | 7.18 | −2.85 ± .47 | 6.06 |

TABLE XI

DIFFERENCES BETWEEN BARAMA CARIBS AND CENTRAL CARIBS, BARAMA CARIBS AND CENTRAL ARAWAKS, WITH VALUE IN TERMS OF PROBABLE ERROR

| Indices | Barama Caribs compared with Central Caribs—Male | | Barama Caribs compared with Central Arawaks—Male | |
|---|---|---|---|---|
| | Diff. | p.e. | Diff. | p.e. |
| Rel. shoulder br. | − .28 ± .14 | 2.00 | − .36 ± .20 | 1.80 |
| Thoracic | 2.86 ± .48 | 5.96 | 4.34 ± .66 | 6.58 |
| Rel. sitting height | .06 ± .17 | .35 | .20 ± .22 | .91 |
| Cephalic | − .66 ± .24 | 2.75 | − .12 ± .42 | .28 |
| Cephalo-facial | − 1.23 ± .30 | 4.10 | − 1.83 ± .57 | 3.21 |
| Zygo-gonial | − 3.12 ± .37 | 8.43 | − 3.28 ± .51 | 6.43 |
| Facial | 9.78 ± .49 | 19.96 | ..... | .... |
| Upper facial | − 4.02 ± .36 | 11.17 | − 4.50 ± .50 | 9.00 |
| Nasal | −12.12 ± .72 | 16.83 | −13.86 ± 1.07 | 12.95 |

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



TABLE XII

141
144

DIFFERENCES BETWEEN BARAMA CARIBS AND CENTRAL CARIBS, BARAMA CARIBS AND CENTRAL ARAWAKS, WITH VALUE IN TERMS OF PROBABLE ERROR

| Measurements | Barama Caribs compared with Central Caribs—Females | | Barama Caribs compared with Central Arawaks—Females | |
|---|---|---|---|---|
| | Diff. | p.e. | Diff. | p.e. |
| Stature | .70 ± .81 | .86 | −1.86 ± .60 | 3.10 |
| Biacromial | −1.44 ± .56 | 2.57 | −1.14 ± .42 | 2.71 |
| Sitting height | .15 ± .52 | .29 | − .15 ± .54 | .28 |
| Head length | 4.71 ± .77 | 6.12 | 3.24 ± .83 | 3.90 |
| Head breadth | 1.44 ± .66 | 2.18 | 6.15 ± .90 | 6.83 |
| Minimum frontal | −4.50 ± .60 | 7.50 | −1.74 ± 1.12 | 1.55 |
| Bizygomatic | .05 ± .65 | .08 | 1.80 ± .88 | 2.04 |
| Bigonial | −5.24 ± .62 | 8.45 | − .92 ± .89 | 1.03 |
| Total face height | 9.25 ± .90 | 10.28 | 9.25 ± 1.23 | 7.52 |
| Upper face height | −1.50 ± .66 | 2.27 | −4.00 ± .61 | 6.56 |
| Nose height | 6.84 ± .55 | 12.44 | 6.84 ± .70 | 9.77 |
| Nose breadth | −1.38 ± .37 | 3.73 | − .69 ± .52 | 1.33 |

TABLE XIII

DIFFERENCES BETWEEN BARAMA CARIBS AND CENTRAL CARIBS, BARAMA CARIBS AND CENTRAL ARAWAKS, WITH VALUE IN TERMS OF PROBABLE ERROR

| Indices | Barama Caribs compared with Central Caribs—Females | | Barama Caribs compared with Central Arawaks—Females | |
|---|---|---|---|---|
| | Diff. | p.e. | Diff. | p.e. |
| Rel. shoulder br. | − .50 ± .22 | 2.27 | − 1.14 ± .28 | 4.07 |
| Rel. sitting height | − .14 ± .26 | .54 | .08 ± .35 | .23 |
| Cephalic | − 1.86 ± .41 | 4.54 | − .12 ± .44 | .27 |
| Cephalo-facial | − .93 ± .52 | 1.79 | − .90 ± .55 | 1.64 |
| Zygo-gonial | − 3.26 ± .46 | 7.09 | − 1.26 ± .71 | 1.77 |
| Facial | 7.05 ± .91 | 7.75 | ..... | .... |
| Upper facial | − 2.40 ± .49 | 4.90 | − 3.99 ± .59 | 6.76 |
| Nasal | −13.98 ± .94 | 14.87 | −11.43 ± 1.21 | 9.45 |

1: Gillin E-5 (1932-33)1936 SR9 Carib SR9



TABLE XVII

141
144

DIFFERENCES OF MEANS AND VALUE IN TERMS OF PROBABLE ERROR BETWEEN THE PURE CARIB GROUP AND CENTRAL CARIBS, THE PURE CARIBS AND CENTRAL ARAWAKS, MALES

| Measurements | Differences between Pure Caribs and Central Caribs. Male | | Differences between Pure Caribs and Central Arawaks Male | |
|---|---|---|---|---|
| | Diff. | x.p.e. | Diff. | x.p.e. |
| Stature | −1.20 ± .93 | 1.29 | −2.91 ± 1.10 | 2.64 |
| Biacromial | − .60 ± .36 | 1.67 | − .94 ± .44 | 2.14 |
| Chest breadth | −1.08 ± .25 | 4.32 | −1.89 ± .32 | 5.91 |
| Chest depth | −5.56 ± .18 | 30.89 | −5.58 ± .22 | 25.36 |
| Sitting height | −1.05 ± .47 | 2.23 | −1.80 ± .57 | 3.16 |
| Head length | 3.33 ± .88 | 3.78 | 1.11 ± .92 | 1.21 |
| Head breadth | 1.92 ± .85 | 2.26 | .93 ± .99 | .94 |
| Minimum frontal | −3.52 ± .79 | 4.46 | −3.93 ± .98 | 4.01 |
| Bizygomatic | −1.25 ± .70 | 1.79 | −1.90 ± .87 | 2.18 |
| Bigonial | −4.52 ± 1.03 | 4.39 | −5.32 ± 1.12 | 4.75 |
| Total face height | 3.90 ± 1.02 | 3.82 | 3.20 ± 1.14 | 2.81 |
| Upper face height | −8.10 ± .66 | 12.27 | −9.35 ± .75 | 12.47 |
| Nose height | 3.61 ± .56 | 6.45 | 4.40 ± .62 | 7.10 |
| Nose breadth | −3.06 ± .39 | 7.85 | −3.54 ± .50 | 7.08 |

TABLE XVIII

DIFFERENCES OF MEANS AND VALUE IN TERMS OF PROBABLE ERROR BETWEEN THE PURE CARIB GROUP AND CENTRAL CARIBS, THE PURE CARIBS AND CENTRAL ARAWAKS, MALES

| Indices | Differences between Pure Caribs and Central Caribs. Male | | Differences between Pure Caribs and Central Arawaks Male | |
|---|---|---|---|---|
| | Diff. | x.p.e. | Diff. | x.p.e. |
| Rel. shoulder br. | − .58 ± .20 | 2.90 | − 1.13 ± .30 | 3.77 |
| Thoracic | − .16 ± .66 | .24 | 1.32 ± .80 | 1.65 |
| Rel. sitting height | − .32 ± .22 | 1.45 | − .18 ± .26 | .69 |
| Cephalic | − .42 ± .45 | .93 | .12 ± .57 | .21 |
| Cephalo-facial | − 1.80 ± .40 | 4.50 | − 2.40 ± .62 | 3.87 |
| Zygo-gonial | − 2.91 ± .66 | 4.41 | − 3.07 ± .75 | 4.09 |
| Facial | 8.73 ± .66 | 13.23 | ..... | .... |
| Upper facial | − 5.49 ± .45 | 12.20 | − 5.97 ± .57 | 10.47 |
| Nasal | −11.04 ± .93 | 11.87 | −12.78 ± 1.22 | 10.48 |

1: Gillin E-5 (1932-33) 1936 SR9 Carib SR9



TABLE XIX

DIFFERENCES OF MEANS AND VALUE IN TERMS OF PROBABLE ERROR BETWEEN THE PURE CARIB GROUP AND CENTRAL CARIBS, THE PURE CARIBS AND CENTRAL ARAWAKS, FEMALES

141
144

| Measurements | Differences between Pure Caribs and Central Caribs. Female | | Differences between Pure Caribs and Central Arawaks. Female | |
|---|---|---|---|---|
| | Diff. | x.p.e. | Diff. | x.p.e. |
| Stature | 2.44 ± 1.00 | 2.44 | − .12 ± .84 | .14 |
| Biacromial | −2.10 ± .63 | 3.33 | −1.80 ± .52 | 3.46 |
| Sitting height | .36 ± .63 | .57 | .06 ± .65 | .09 |
| Head length | 7.12 ± .95 | 7.49 | 5.65 ± 1.00 | 5.65 |
| Head breadth | 1.95 ± .72 | 2.71 | 6.66 ± .94 | 7.08 |
| Minimum frontal | −4.74 ± .74 | 6.40 | −1.98 ± 1.20 | 1.65 |
| Bizygomatic | .70 ± .56 | 1.25 | 2.45 ± .66 | 3.71 |
| Bigonial | −2.92 ± .85 | 3.43 | 1.40 ± 1.06 | 1.32 |
| Total face height | 9.90 ± 1.08 | 9.17 | 9.90 ± 1.36 | 7.28 |
| Upper face height | 3.04 ± .77 | 3.95 | .45 ± .73 | .62 |
| Nose height | 7.40 ± .62 | 11.94 | 7.40 ± .76 | 9.74 |
| Nose breadth | −1.14 ± .44 | 2.59 | − .45 ± .57 | .79 |

TABLE XX

DIFFERENCES OF MEANS AND VALUE IN TERMS OF PROBABLE ERROR BETWEEN THE PURE CARIB GROUP AND CENTRAL CARIBS, THE PURE CARIBS AND CENTRAL ARAWAKS, FEMALES

| Indices | Differences between Pure Caribs and Central Caribs. Female | | Differences between Pure Caribs and Central Arawaks. Female | |
|---|---|---|---|---|
| | Diff. | x.p.e. | Diff. | x.p.e. |
| Rel. shoulder bth. | − 1.23 ± .30 | 4.07 | − 1.86 ± .35 | 5.31 |
| Rel. sitting height | − .38 ± .35 | 1.09 | − .16 ± .42 | .38 |
| Cephalic | − 2.19 ± .48 | 4.56 | − .45 ± .51 | .88 |
| Cephalo-facial | − .36 ± .62 | .58 | − .33 ± .65 | .51 |
| Zygo-gonial | − 2.06 ± .63 | 3.27 | − .06 ± .84 | .07 |
| Facial | 7.02 ± .96 | 7.31 | ..... | .... |
| Upper facial | − 2.97 ± .52 | 5.71 | − 4.56 ± .62 | 7.35 |
| Nasal | −14.58 ± 1.07 | 5.71 | −12.03 ± 1.32 | 9.11 |